

Content

1. ERIKS operating companies
2. Product description
3. Requirements for maintenance staff
4. Transport and storage
5. Function
6. Application
7. Installation
8. Maintenance
9. Service and repair
10. Safety notes
11. Troubleshooting
12. Removal



1. ERIKS operating companies

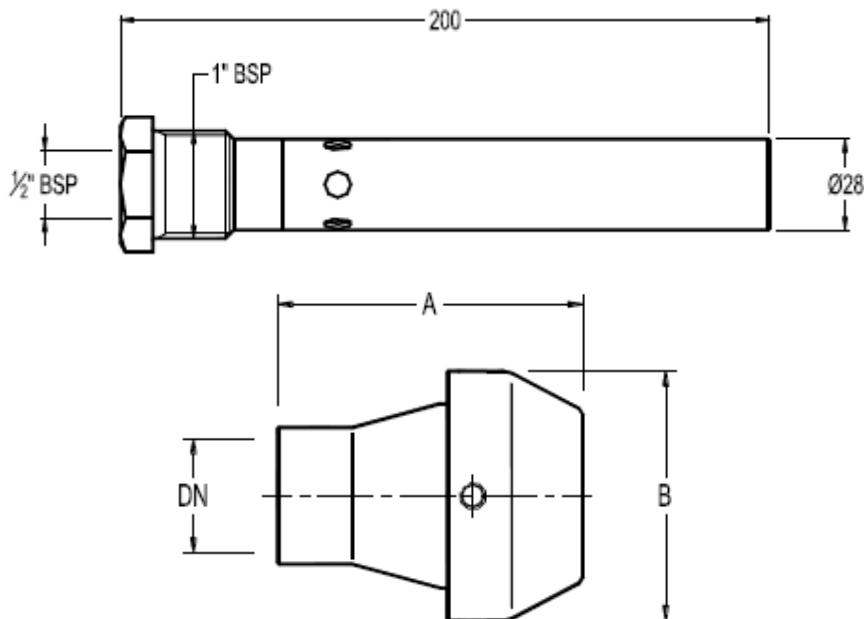
ECON Steam Injectors are being delivered by several ERIKS operating companies on a worldwide basis. In this manual these will be referred to as 'ERIKS', the individual terms of delivery of the ERIKS operating company having executed the order are applicable.

2. Product description

The ECON Steam Injectors are designed according the information on our website, www.eriks.com and should be used in accordance with the applicable pressure-temperature rating as stated on this website. Steam Injectors are provided with a nameplate. The marking makes the identification of the Steam Injectors easier and contains:

- Figure number
- Limiting pressure and temperature
- Limiting water temperature
- ECON

The dimensions of the ECON Steam Injectors are shown below.



Size DN	A (mm)	B (mm)	Weight (kg)
1"	90	73	0,92
1 1/2"	114	88	1,8

3. Requirements for maintenance staff

The staff assigned to assembly, operating and maintenance tasks should be qualified to carry out such jobs and in any circumstance, ensure personal safety

4. Transport and storage

During transport and storage the Steam Injectors should be protected against external forces, and influences. The Steam Injectors should be stored in an unpolluted space and should also be protected against all atmospheric circumstances. The temperature and humidity in the room should be taken care of, in order to prevent condensate formation.

5. Function

ECON Steam Injectors are injection condensers. They ensure low noise and vibration and rapid heating of still or flowing fluids in basins and vessels due to direct steam injection.

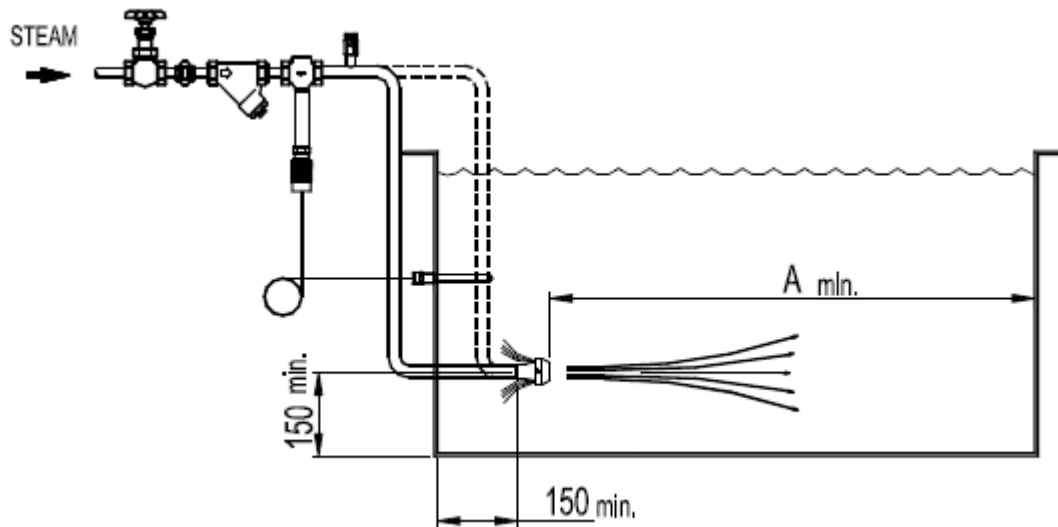
6. Application

The ECON Steam Injectors are for general purpose applications. For the use of extreme conditions e.g. aggressive or abrasive media, it is recommended to mention this at the ordering stage, to verify whether the Steam Injectors is suitable. The installation designer is responsible for the Steam Injectors selection, suitable for the working conditions. The Steam Injectors are unsuitable, without written permission of an ERIKS company, to apply for hazardous media as referred into Regulation (EC) No 1272/2008.

7. Installation

During the assembly of the Steam Injectors, the following rules should be observed:

- make sure, before assembly, that the Steam Injectors were not damaged during the transport or storage, are according request and are suitable for the job.
- make sure to remove the plastic covers placed on connection ends before installing the Steam Injector.
- make sure that the thread on the pipe are from the same standard as the Steam Injectors and also free from pollution.
- the Steam Injectors should be fitted as low as possible in the tank and always below the level of the thermostat controller. See for typical installation examples the figures on the next page.
- be sure that the Steam Injector will be installed in the appropriate direction.
- the installation area should have easy access and provide enough space for maintenance and removing operations.
- In case of injecting through multiple Steam Injectors make sure the injectors are placed at a distance of at least 300mm from each other.



Operating pressure (bar)	A (mm)
2 - 4	300
4 - 8	500
8 - 10	800
10 - 14	1000
14 - 17	1300

8. Maintenance

Before starting any service jobs, make sure that the medium supply to the pipeline is cut off, pressure was decreased to ambient pressure, the pipeline is completely cleaned and ventilated and the plant is cooled down. Always keep safety instructions in mind and take all personal safety precautions.

During maintenance, the following rules should be observed:

- always keep personal safety precautions in mind and always use appropriate protection e.g. clothing, masks, gloves etc.
- be alert that the temperature still can be very high or low and can cause burns.
- there are no internal components that require maintenance.
- we recommend that Steam Injectors are serviced as necessary. Steam Injectors should be checked periodically (at least yearly), to verify that they are operating correctly.

9. Service and repair

All service and repair jobs should be carried out by authorized staff, using suitable tools and user shall use genuine valve parts.

- welding repair and drilling of the Steam Injectors is forbidden.
- it is forbidden to replace the bolt, nut or packing when the Steam Injectors is under pressure.

There are no spare parts available for the ECON Steam Injector.

10. Safety notes

Allow time for temperature to normalize after isolation to avoid danger of burns.

11. Troubleshooting

It is essential that the safety regulations are observed when identifying the fault.

Problem	Possible cause	Corrective measures
The Steam Injector is making a lot of noise	The water inlet of the Steam Injector is blocked	Clean the Steam Injector

12. Removal

Dismantled and rejected valves cannot be disposed with household waste. The Steam Injectors are made of materials which can be re-used and should be delivered to designated recycling centres.